

Capturing the . . .

Daylight Dividend

Pervasive Implementation

- Public benefit programs
- Codes and standards
- Education
- Design tools
- Procurements

Resounding Market Demand

- Productivity and health
- Energy savings
- Load shedding
- Green environments

Enhanced Technical Capabilities

- Reliable dimming systems
- Photosensors
- Energy management protocols
- HVAC systems integration
- Sun control
- Product verification

Daylight Dividends

Project Partners

(Sponsors in bold)

- **California Energy Commission**
- **Iowa Energy Center**
- **Northeast Utilities (CL&P)**
- **Northwest Energy Efficiency Alliance**
- **NYSERDA**
- **U.S. Department of Energy**
- Energy Center of Wisconsin
- Florida Solar Energy Center
- Lighting Research Center
- North Carolina State

Daylight Dividends

Current Status

- DOE Contract to NYSERDA; NYSERDA subcontract to LRC
- Co-funders contracting directly with LRC
- DOE “Kickoff meeting” held November 6, 2002 at LRC
- First Steering Committee meeting January 15, 2003 in Washington, DC
- Second Steering Committee meeting May 30, 2003 in Seattle

Daylight Dividends

Task 1:

Operations/Priority Setting

- Steering Committee
- Blue ribbon review panel of human benefits research
- 5 regional focus groups to prioritize demonstrations and research

Daylight Dividends

Task 2: RD&D Activities

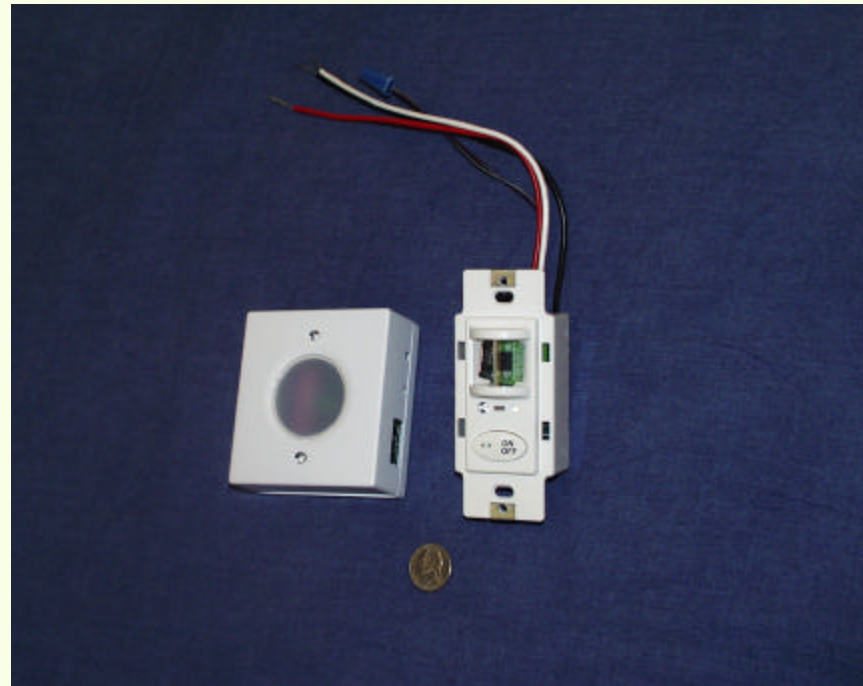
- Daylight and productivity studies



Daylight Dividends

Task 2: RD&D Activities

- Daylighting controls development



Daylight Dividends

Task 2: RD&D Activities

- Lamp/ballast reliability

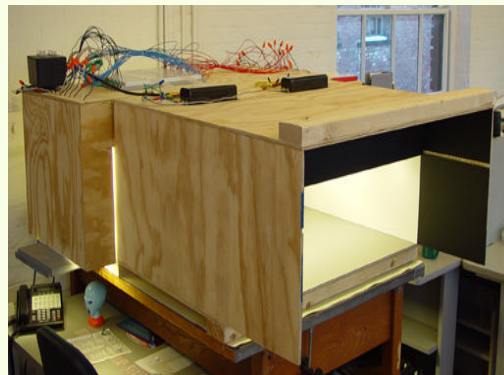


Daylight Dividends

Task 3:

Seed Research/Demonstrations in Priority Areas

- Technology development, improved strategies, and/or design tools



Daylight Dividends

Task 3:

Seed Research/Demonstrations in Priority Areas

- Issue RFPs for 9 projects over 3 years
- \$20,000 co-funding / project

Daylight Dividends

Task 4:

National/State/Regional Activities

- Collect results of project partners and other Daylighting activities

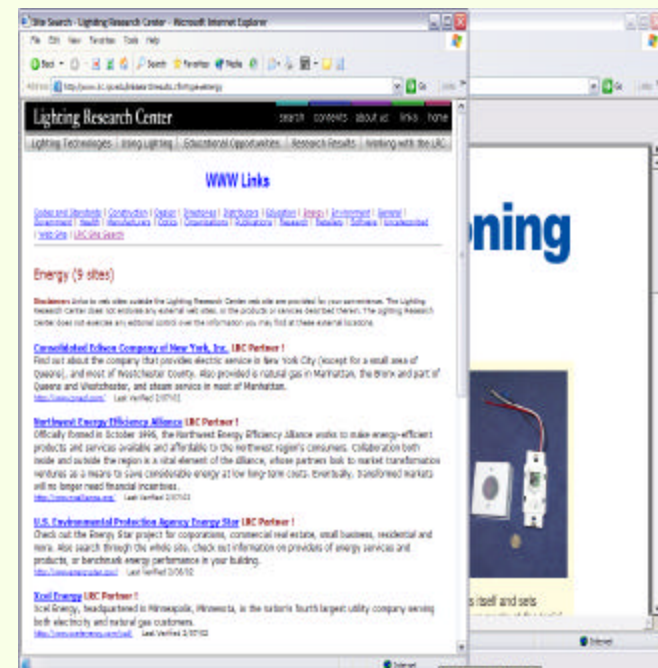


Daylight Dividends

Task 4:

National/State/Regional Activities

- Technical review
- Feedback to priority setting
- Link to resources and results on web site

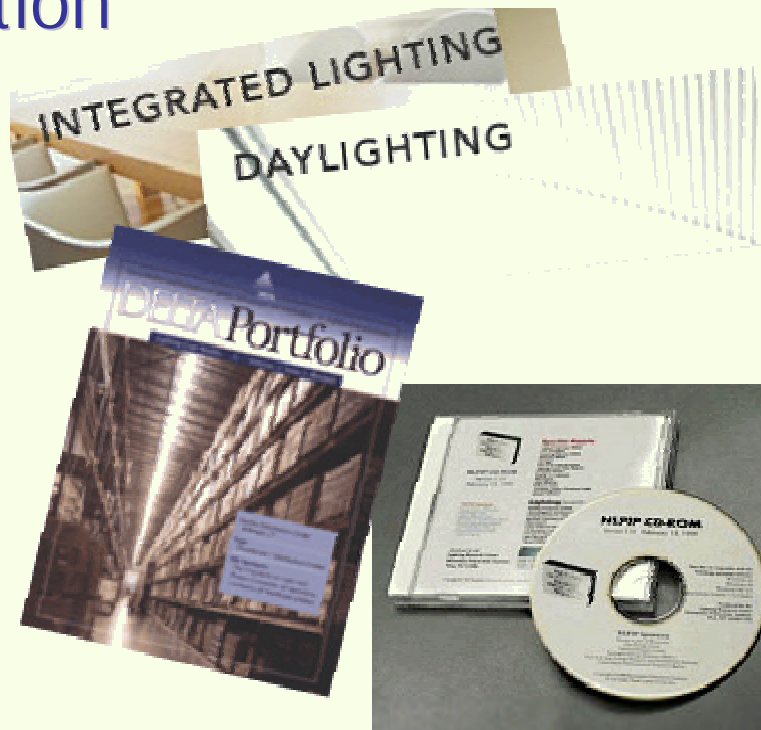


Daylight Dividends

Task 5:

Demonstration Projects

- Minimum of three case studies
- Documentation



Daylight Dividends

Task 5:

Demonstration Projects

- New or improved daylighting designs or technologies



Daylight Dividends

Task 5:

Demonstration Projects

- Consistent evaluation protocol
- Identify priority sites for field tests



Daylight Dividends

Task 6: Dissemination

- Disseminate results to project partners to assist state/regional daylight activities
- Dissemination strategy
- Web site linked to project partners activities and resources

Daylight Dividends

Task 6: Dissemination

- Publicize value of daylighting in a variety of media



INTERNATIONAL
INTERIOR DESIGN
ASSOCIATION

IALD

INTERNATIONAL ASSOCIATION OF LIGHTING DESIGNERS

Purpose?

To understand:

- how building owners, developers, managers, and designers feel about daylighting
- what barriers exist in the broad utilization of daylighting
- how to communicate with these building decision makers

Daylight Dividends Focus Groups

Portland, OR	Architects, Engineers, Designers
New York, NY	Architects, Engineers, Designers
Charlotte, NC	Owners, Developers, Managers
Des Moines, IA	Owners, Developers, Managers
Orange County, CA	Designers, Owners, Developers, and Managers

*Daylight Dividends Focus Groups:
Preliminary Results*

Overall Feelings about Daylighting

- Building Designers: Positive
 - NY vs. Portland
- Owners/Developers: Neutral
 - Concerned with comfort, cost and controls problems

*Daylight Dividends Focus Groups:
Preliminary Results*

Who Makes the Daylighting Decisions?

- Owners/developers based on vision and budget
- Portland designers believe they influence the owners to choose daylight
- Dependent on building type
 - Public buildings more than offices
 - Not in casinos, prisons, performance spaces

*Daylight Dividends Focus Groups:
Preliminary Results*

Top 3 Perceived Benefits?

- Occupants feeling of well-being
 - Comfort
 - Feel good about self
 - Like being outdoors
 - Productivity
- Energy savings
- Improved Aesthetics

*Daylight Dividends Focus Groups:
Preliminary Results*

Primary Barriers?

- All groups agreed: First cost and cost effectiveness
- Secondary barriers varied by groups

*Daylight Dividends Focus Groups:
Preliminary Results*

Secondary Barriers?

- CA: Safety/security. Glass in urban areas is a threat.
- CA: Consistency of light at workstations
- Site issues preventing use of daylight
- Design team's knowledge of daylight
- Building owners/developers understanding of daylight
- Problems with controls and technologies

*Daylight Dividends Focus Groups:
Preliminary Results*

Overcoming Barriers:

- Most important: Prove benefits and cost effectiveness
- Also:
 - Better, easy-to-use design tools
 - Better, more cost effective controls
 - Better windows
 - Proof of claims (productivity, sales, etc.)

*Daylight Dividends Focus Groups:
Preliminary Results*

Effective Communications?

- All groups: web sites
- Designers: seminars at conferences
- Owners/Developers:
 - Professional or trade journals
 - Person to discuss use of daylight for their specific project



Thank You